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LAND FOR WILDLIFE

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DALGYTES ARE ON THE WAY BACK!

by Tony Friend

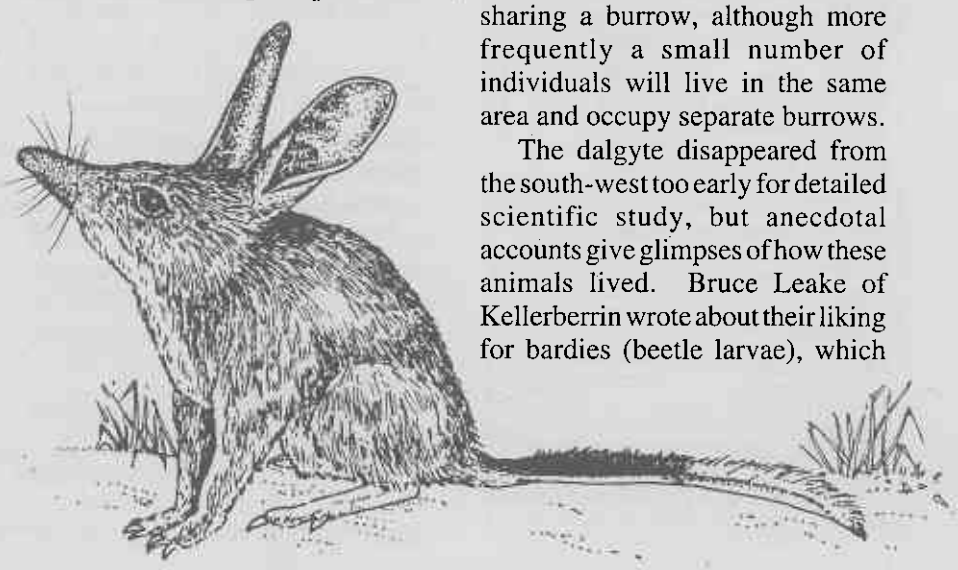
IMAGINE an animal designed by a committee from bits and pieces left over after a mammalian fancy dress party. An oversized head with huge rabbit ears and an extremely long snout, a tail that changes from jet-black to snow-white halfway along and tipped by a nail and hugely strong forelimbs with powerful claws, are all tacked onto a stout body covered in the softest, blue-grey fur, decorated with pinkish flashes on the sides. And if that's not odd, imagine that it digs a burrow that can be two metres deep.

The dalgyte, ninu, marrura, walpatjirri, rabbit-eared bandicoot, *Macrotis lagotis* or greater bilby was once widespread and common in arid and semi-arid Australia, that is, across about three-quarters of the continental surface. Settlers in the south-west of Western Australia used the Noongar name, dalgyte, for this animal, and numerous early accounts describe its habits. John Gilbert, while making collections of WA mammals in 1842-3 for his employer John Gould, wrote "The Dolgoitch seems to be almost entirely an insect feeder, and one of its most favourite morsels apparently is the larva of a species of *Cerambyx* [a longhorn beetle], found exclusively in the roots of the Jam-wood (*Acacia*)..." He also observed that "The flesh is extremely delicate, and when boiled greatly resembles that of the common rabbit." Gilbert collected dalgytes from Moore River to Albany, and as he only sent skins home to Gould, had many opportunities to make this assessment.

Today the species is found only in arid parts of its former range, and even then only where rabbits are absent. Dalgytes occur in a wide sweep of desert country encompassing much of the east Pilbara, the Great Sandy Desert, the Gibson Desert and as far south as Warburton. In the north, they occur near the coast from Pardoo to Broome and inland along the southern edge of the Kimberley and across the Northern Territory border into the Tanami Desert. Further east, there appear to be no populations closer than the Channel country of south-west Queensland, where the Mitchell grass plains on the Diamantina River support a few hundred animals.

In the desert, dalgytes have a varied diet, in accordance with the seasonal and spatial availability of food types. Termites, larvae of Lepidoptera (particularly hawkmoth larvae) and other insects, as well as seeds, tubers and bulbs are all on the menu. Most of these items occur underground and the telltale signs of dalgyte presence include their foraging diggings as well as their distinctive tracks, sand-filled faecal pellets and burrow excavations. In spinifex grassland, burrows are often found at the base of *Triodia* hummocks or under small trees, although dalgytes may also burrow into roadside banks pushed up by the grader, once they are vegetated. Dalgytes live in small colonies, a male, female and young sometimes sharing a burrow, although more frequently a small number of individuals will live in the same area and occupy separate burrows.

The dalgyte disappeared from the south-west too early for detailed scientific study, but anecdotal accounts give glimpses of how these animals lived. Bruce Leake of Kellerberrin wrote about their liking for bardies (beetle larvae), which



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they dug from the roots of acacias. Job Haddleton from Kojonup nominated "bardies, grubs or insects" as their chief foods. Most early observers recount the difficulty in digging a dalgyte out, as the burrow dives steeply down in a spiral to a depth of two metres, and the animal can dig faster in escape than the human in pursuit.

Dalgytes disappeared quite quickly from the south-west in the early 1930s, following the arrival of the rabbit and coinciding with the arrival of the fox. C.F.H. Jenkins believed that indiscriminate fumigation of burrows to kill rabbits during the plagues of the early 1930s contributed to the demise of dalgytes. With the benefit of hindsight, we might put more of the blame on the fox, given more recent evidence of its devastating effect on native mammals in Australia.

Recently, efforts to reverse the dalgyte's decline have received support from an unlikely source – chocolate. The Easter Bilby is making a bold bid to displace the Easter Bunny from its role as the cuddly mascot of the holiday period. Rather than glorifying the rabbit, an introduced pest that has been the scourge of Australian agriculture and natural ecosystems alike, the Easter Bilby concept elevates a native animal to a positive social role – that of delivering chocolate eggs!

For the last five years, a partnership between Coles Supermarkets, government conservation agencies and NGOs has pushed dalgyte conservation programs ahead, as well as sustaining the educational value of the Easter Bilby concept. The scheme provided 50 cents from the sale of each of 90 000 chocolate bilbies to on-ground bilby conservation programs around Australia. Captive breeding, reintroduction programs and a predator monitoring project are amongst the activities funded by the vaguely dalgyte-shaped confectionery.

In WA, two major projects are returning dalgytes to their former range, in areas where foxes are

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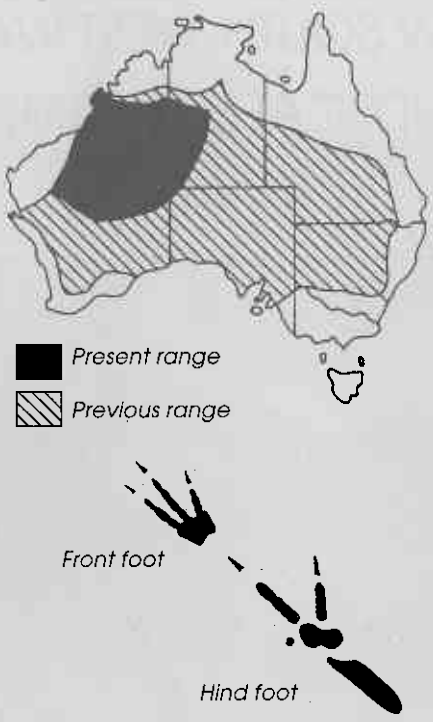

controlled by regular baiting. Both projects are part of CALM's *Western Shield* program. In July 2000, dalgytes produced in a captive breeding colony at Denham were released into the wild on Peron Peninsula, Shark Bay, as part of *Project Eden*, following the successful establishment of gnow (malleefowl) and woylies released there earlier.

In April 2000, the first seven dalgytes were released into a pre-release enclosure within Dryandra Woodland near Narrogin as part of the *Return to Dryandra* project. A captive breeding colony run by June Butcher at Kanyana Wildlife Rehabilitation Centre in Gooseberry Hill was established in 1997, stocked with wild dalgytes from the Pilbara and Kimberley and captive-bred animals from the Northern Territory. More than 50 dalgytes were born at Kanyana up to April 2000 and many of these have been transferred to a 20-hectare breeding enclosure within Dryandra. Numbers rose quickly within the enclosure, enabling the releases into the wild to take place.

The Dryandra reintroduction was set up to determine whether release via a small enclosure, where animals spend 2-3 weeks before the gates are opened, would reduce the tendency to bolt well beyond the release area. In the first release, seven dalgytes spent three weeks inside the enclosure before release, while eleven were released into artificial burrows outside. Both groups had food and water provided at the release sites. Despite the fact that the animals had dug burrows inside the release enclosure, radio-tracking showed that most moved well away within three nights. In both groups, some moved well away and some moved only a short distance. Several dalgytes moved right out of Dryandra into the surrounding farmland and had to be trapped and brought back. Ironically, most of the dalgytes spent their first nights of freedom in abandoned rabbit burrows they had found.

Since then two distinct colonies have become established within Dryandra and several young have been born in the wild. The dalgytes have dug their own burrows now and are once again extracting bardie grubs from the roots of Acacias.

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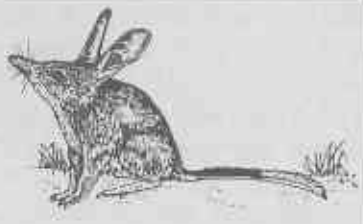

Borer (bardie grub) damage to the above-ground parts of trees often causes concern. But there are bardies in the plants' roots, too. Dalgytes were the principal known predator on these, so they have probably built up in numbers. Could increasing root damage by bardies be one of the causes of the widespread tree decline seen in some areas of the south-west?